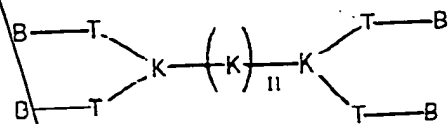
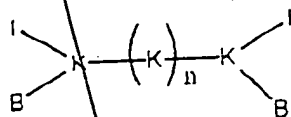


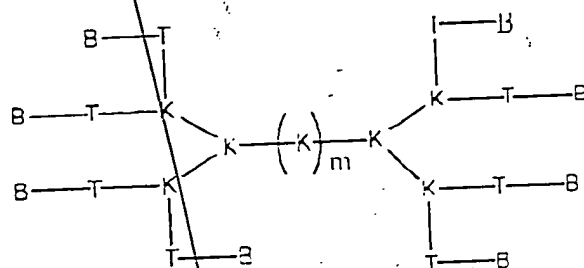
--29. A carbohydrate peptide conjugate selected from the group consisting of the conjugates of the following formulae



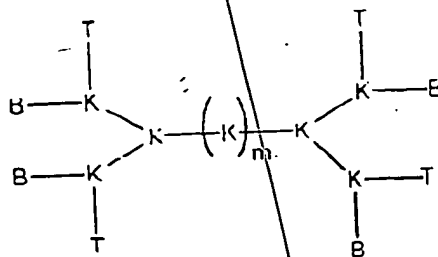
(B4-T4-M)



(B2-T2-M)



(B8-T8-M)



(B4-T4-M)

wherein:

- B denotes a structurally defined carbohydrate moiety, or a derivative thereof, containing B epitope other than a sialoside, or several identical or different B epitopes;

- T denotes a peptide comprising one T epitope or several identical or different T-epitopes;

- K denotes a lysine residue;

- n is an integer from 1 to 13;

- m is an integer from 1 to 9; and

wherein the B and T groups are covalently attached to the poly-lysine carrier.

30. A conjugate of claim 29 wherein the carbohydrate moiety is galactosyl.

31. A conjugate of claim 29 which comprises 3 lysine residues, at least 4 T cell epitopes, which may be the same or different, linked to the NH<sub>2</sub> ends of 2 of the lysine residues and 4  $\alpha$ -galactosyl-N-acetyl-Serine residues.

32. A conjugate of claim 29 wherein the carbohydrate moiety is a galactosyl residue and is substituted by another glycosyl residue.

33. A conjugate of claim 29 wherein the carbohydrate is a tumor antigen.

34. A conjugate of claim 29 wherein the epitope T is the 103-115 peptide of the VP1 protein of poliovirus type 1.

E! Conty 35. A conjugate of claim 29 wherein the carbohydrate is grafted in combination with a tumor peptide CD8<sup>+</sup> T cell epitope.

36. A conjugate of claim 29 wherein the carbohydrate is of bacterial or fungal origin.

37. A conjugate of claim 29 wherein the carbohydrate is from capsular bacterial polysaccharides selected from the group consisting of *Neisseria meningitis*, *Haemophilus influenza*, *Streptococcus pneumonia* and other *Streptococcus* species other than sialylated polysaccharides.

Sub 21 38. A conjugate of claim 29 wherein the carbohydrate is selected from the group consisting of Tn antigen, di-Tn antigen, Tri-Tn antigen, T<sup>\*</sup> antigen and hexa-Tn antigen.

39. A pharmaceutical composition comprising the conjugate of claim 29 and a suitable carrier and adjuvant.

Sub 21 40. A vaccine comprising the conjugate of claim 29.

41. An immunogenic composition comprising at least one carbohydrate peptide conjugate of claim 29 capable to elect an

~~immune response against a viral infection caused by a pathogen.~~

E' Cont'd  
Sub  
42. An immunogenic composition comprising at least one carbohydrate peptide conjugate of claim 29 wherein said composition is capable of increasing the survival of a tumor bearing human or animal.

43. An immunogenic composition comprising at least one carbohydrate peptide conjugate of claim 42 wherein said conjugate comprises different carbohydrate antigens to induce more efficient anti-tumor immunity against cancers.

44. A method of inducing an immune response to at least one member of the group consisting of B-cells and T-cells in a human or animal body, wherein the conjugate of claim 29 is administered to said human or animal body.

45. A method for inducing an immune response to at least one member of the group consisting of B-cells and T-cells in a human or animal body against bacteria wherein the conjugate of claim 36 is administered to said human or animal body.

46. A method for inducing a B-cell response in a human or animal body, wherein the conjugate of claim 29 is administered to said human or animal body.